WHAT IS CLAIMED IS:

1. A method of manufacturing a forged article including a surface, the method comprising:

defining a negative tooling pattern based on the surface;

providing a tooling set having a bottom die, a top die and an anvil, the bottom die being formed with an upper die surface that conforms to the negative tooling pattern, the anvil extending through the bottom die and defining an axis, the bottom die and the top die cooperating to define a die cavity;

preheating an annular blank formed of ferrous material to forging temperature selected Tw release to the melting temperature Tm of the material so that the homologous absolute temperature ratioTw/Tm is between .62 and .80;

placing an annular blank on an anvil and into the die cavity between a top die and the bottom die; and

pressing the blank between the top and bottom dies in a pressing direction that is generally parallel to the axis to form the forged article in single stroke.

2. The method according to claim 1, wherein homologous temperature ratio is .65 to .70.

3. The method according to claim 2, wherein the hollow blank is heated to a temperature of about 1700 degrees Fahrenheit to about 1800 degrees Fahrenheit.

4. The method according to claim 1, further comprising selecting a forging temperature so that the material dynamically re-crystallizes to an ASTM grain size of about 7 to about 8 as the blank is being forged.

5. The method according to claim 1, further comprising coating the hollow blank with a lubricant prior to forging.

6. The method according to claim 1, wherein the forged article is net shaped or near-net shaped.

7. The method according to claim 1, further comprising forming the hollow blank such that it conforms to a predetermined volumetric size to thereby control a weight of the forged article.

8. The method according to claim 1, further comprising sectioning a tube shaped billet to create the hollow blank.

9. The method according to claim 1, further comprising removing an amount of excess material from a second surface of the forged article opposite the surface.

10. The method according to claim 1, wherein the hollow blank is ring-shaped.

11. A forged article made according to the method of claim 1.

12. A method of manufacturing a ring gear including a surface having teeth, the method comprising:

defining a negative tooling pattern based on the surface;

providing a tooling set having a bottom die, a top die and an anvil, the bottom die being formed with an upper die surface that conforms to the negative tooling pattern, the anvil extending through the bottom die and defining an axis, the bottom die and the top die cooperating to define a die cavity;

preheating an annular blank formed of ferrous material to forging temperature selected Tw release to the melting temperature Tm of the material so that the homologous absolute temperature ratioTw/Tm is between .62 and .80;

placing an annular blank on an anvil and into the die cavity between a top die and the bottom die; and

pressing the blank between the top and bottom dies in a pressing direction that is generally parallel to the axis to form the ring gear.

13. The method according to claim 12, wherein homologous temperature ratio is .65 to .70.

14. The method according to claim 13, wherein the hollow blank is heated to a temperature of about 1700 degrees Fahrenheit to about 1800 degrees Fahrenheit.

15. The method according to claim 12, further comprising dynamically re-crystallizing a material of the hollow blank to an ASTM grain size of about 7 to about 8 as the hollow blank is being pressed.

16. The method according to claim 12, further comprising coating the hollow blank with a lubricant.

17. The method according to claim 12, wherein the ring gear is net shaped or near-net shaped.

18. The method according to claim 12, further comprising forming the hollow blank such that it conforms to a predetermined volumetric size to thereby control a weight of the ring gear.

19. The method according to claim 12, further comprising forming during the forging pressing operation a series of fluid holes.

20. A ring gear made according to the method of claim 12.